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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/529,729

03/30/2005

Leonie Maria Geerdinck

NL 020939

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12/28/2007

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

GREEN, TRACIE Y

ART UNIT

PAPER NUMBER

2879

MAIL DATE

DELIVERY MODE

12/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/529,729	Applicant(s) GEERDINCK ET AL.	
	Examiner Tracie Y. Green	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Europe on 10/04/2002. It is noted, however, that applicant has not filed a certified copy of the EPO-02079124.0 application as required by 35 U.S.C. 119(b).

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

3. Claims 1-19 and 22 rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-20 of prior U.S. Patent No. 7276853. This is a double patenting rejection.

U.S. Application 10/529729	Prior US Patent.	Reason for rejecting under statutory double-patenting-claims identical
Claim 1	Claim 1	. (original) A low-pressure mercury vapor discharge lamp comprising an at least partly substantially cylindrical discharge vessel (i0) with a length L _{dv} and with an internal diameter D _{in} , the discharge vessel (i0) enclosing, in a gastight manner, a discharge space (13) provided with a inert gas mixture and with mercury, the discharge vessel (i0) comprising discharge means for maintaining a discharge in the discharge space (13), characterized in that the ratio of the weight of mercury m _{Hg} in the discharge vessel (i0) to the product of the internal diameter D _{in} and the length of the discharge vessel L _{dv} is given by the relation: $m_{Hg} / (D_{in} \times L_{dv})$ wherein $C \leq 0.01 \mu\text{g}/\text{mm}^2$.
Claim 2	Claim 2	A low-pressure mercury vapor discharge lamp as claimed in claim 1 characterized in that $0.0005 \sim C \sim 0.005 \text{ Mg}/\text{mm}^2$.
		A low-pressure mercury vapor discharge lamp comprising an at least partly substantially cylindrical discharge vessel with a length L _{ay} and with an internal diameter D _{in} , - the discharge vessel enclosing, in a gastight manner, a discharge space provided with a inert gas mixture and with mercury, - the discharge vessel comprising discharge means for maintaining a discharge in the discharge space, characterized in that - the product of the mercury pressure P _{Hg} and the internal diameter D _{in} of the discharge vessel is in a range of $0.13 \sim P_{Hg} \times D_{in} \sim 8 \text{ Pa.cm}$
Claim 3	Claim 3	A low-pressure mercury vapor discharge lamp comprising an at least partly substantially cylindrical discharge vessel (10) with a length L _{ay} and with an internal diameter D _{in} , the discharge vessel (10) enclosing, in a gastight manner, a discharge space (13) provided with a inert gas mixture and with mercury, the discharge vessel (20) comprising discharge means for maintaining a discharge in the discharge space (13), characterized in that the product of the mercury pressure P P _{Hg} and the internal diameter D _{in}

		of the discharge vessel lies in a range expressed by $0.13 \leq P_{Hg} \times D_{in} \leq 8 \text{ Pa.cm.}$
Claim 4	Claim 4	A low-pressure mercury vapor discharge lamp as claimed in claim 3, characterized in that the product of the mercury pressure P_{Hg} and the internal diameter D_{in} of the discharge vessel lies in a range expressed by $0.13 \leq P_{Hg} \times D_{in} \leq 4 \text{ Pa.cm.}$
Claim 5	Claim 5	A low-pressure mercury vapor discharge lamp as claimed in claim 1, characterized in that the discharge vessel (10) contains less than 0.1 mg mercury.
Claim 6	Claim 6	6. (currently amended) A low-pressure mercury vapor discharge lamp as claimed in claim 1 characterized in that the discharge means comprises electrodes (20a) (20b) arranged in the discharge space (13), in that an electrode shield (22a; 22b) at least substantially surrounds at least one of the electrodes (20a; 20b), and in that the electrode shield (22a; 22b) is made from a ceramic material or from stainless steel
Claim 7	Claim 7	A low-pressure mercury vapor discharge lamp as claimed in claim 1 characterized in that the means for maintaining an electric discharge are situated outside a discharge space surrounded by the discharge vessel, and in that said means comprise a coil provided with a winding of an electrical conductor, with a high-frequency voltage, for example having a frequency of approximately 3 MHz, being supplied to said coil in operation.
Claim 8	Claim 8	A low-pressure mercury vapor discharge lamp as claimed in claim, characterized in that the product of the pressure of the inert gas mixture P_{igm} and the internal diameter D_{in} of the discharge vessel (10) lies in a range expressed by that $P_{igm} \times D_{in} \geq 5.2 \text{ Pa.m.}$
Claim 9	Claim 9	A low-pressure mercury vapor discharge lamp as claimed in claim 8, characterized in that $P_{igm} \times D_{in} \geq 8 \text{ Pa.m.}$
Claim 10	Claim 10	10. (currently amended) A low-pressure mercury vapor discharge lamp as claimed in claim 1 characterized in that at least a portion of an inner wall of the discharge vessel (10) is provided with a protective layer (17), and in that the protective layer (17) comprises a material selected from the group formed by oxides of scandium, yttrium, and a further

		<p>rare-earth metal, and/or a material selected from the group formed by borates of an alkaline-earth metal, scandium, yttrium, and a further rare-earth metal, and/or a material selected from the group formed by phosphates of an alkaline-earth metal, scandium, yttrium, and a further rare-earth metal. metal is lanthanum, cerium, and/or gadolinium.</p>
Claim 11	Claim 11	<p>11 (original) A low-pressure mercury vapor discharge lamp as claimed in claim 10, characterized in that the alkaline-earth metal is calcium, strontium, and/or barium</p>
Claim 12	Claim 12	<p>12. (original) A low-pressure mercury vapor discharge lamp as claimed in claim 10, characterized in that the further rare-earth metal is lanthanum, cerium, and/or gadolinium.</p>
Claim 13	Claim 13	<p>13. (original) A low-pressure mercury vapor discharge lamp as claimed in claim 10, characterized in that the oxide is yttrium oxide and/or gadolinium oxide.</p>
Claim 14	Claim 14	<p>14. (original) A low-pressure mercury vapor discharge lamp as claimed in claim 10, characterized in that the discharge vessel (10) is made from a glass comprising silicon dioxide and sodium oxide, with a glass composition comprising the following essential constituents, given in percentages by weight (wt.%) : 60-80 wt.% SiO₂ and 10-20 wt.% Na₂O.</p>
Claim 15	Claim 15	<p>15. (original) A low-pressure mercury vapor discharge lamp as claimed in claim 14, characterized in that the glass composition comprises the following constituents: 70-75 wt.% SiO₂, 15-18 wt.% Na₂O, and 0.25-2 wt.% K₂O.</p>
Claim 16	Claim 16	<p>16. (currently amended) A low-pressure mercury vapor discharge lamp as claimed in claim 1 characterized in that the discharge vessel (10) is made from a glass that is substantially free of PbO and comprises, expressed as a percentage by weight, the following constituents: 55-70 wt.% SiO₂, 0.1 wt.% Al₂O₃, 0.5-4 wt.% Li₂O, 0.5-3 wt.% Na₂O, 10-15 wt.% K₂O, 0-3 wt.% MgO, 0-4 wt.% CaO, 0.5-5 wt.% SrO, 7-10 wt.% BaO.</p>
Claim 17	Claim 17	<p>17. (original) The low-pressure mercury vapor discharge lamp as claimed in claim 16, characterized in that the composition of the discharge vessel comprises: 65-70 wt.% SiO₂, 1.4-2.2 wt.% Li₂O, 1.5-2.5 wt.% Na₂O, 11-12.3 wt.% K₂O, 1.8-2.6 wt.%</p>

		MgO, 2.5-5 wt.% CaO, 2-3.5 wt.% SrO, 8-9.5 wt.% BaO.
Claim 18	Claim 18	18. (original) The low-pressure mercury vapor discharge lamp as claimed in claim 16, characterized in that the composition of the discharge vessel in addition comprises: 0.01-0.2 wt. % Fe ₂ O ₃ and/or 0.01-0.2 wt. % CeO ₂ , and/or 0.01-0.15 wt. % S ₂ O ₃ .
Claim 19	Claim 19	19. (original) The low-pressure mercury vapor discharge lamp as claimed in claim 16, characterized in that the sum of the concentrations of Li ₂ O, Na ₂ O, and K ₂ O lies in a range from 14 to 16 wt.% and/or the sum of the concentrations of SrO and BaO lies in a range from 10 to 12.5 wt.%.
Claim 22	Claim 20	A compact fluorescent lamp comprising a low-pressure mercury-vapor discharge lamp as claimed in claim 1, characterized in that a lamp housing (70) is attached to the discharge vessel (10) of the low-pressure mercury-vapor discharge lamp, which lamp housing is provided with a lamp cap

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 1-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Van der pol et al. (U.S. Patent 7,276,853).

Regarding claim 1, Vanderpol teaches A low-pressure mercury vapor discharge lamp (Figure 1) comprising an at least partly substantially cylindrical discharge vessel (10) with a length L_{dv} and with an internal diameter D_{in} , the discharge vessel (10) enclosing, in a gastight manner, a discharge space (13) provided with a inert gas mixture (column 11, lines 9-10) and with mercury, the discharge vessel (10) comprising discharge means for maintaining a discharge in the discharge space (13), characterized in that the ratio of the weight of mercury m_{Hg} in the discharge vessel (10) to the product of the internal diameter D_{in} and the length of the discharge vessel L_{dv} is given by the relation: $(m_{Hg}) / (D_{in} \times L_{dv})$

wherein $C \leq 0.01 \mu\text{g}/\text{mm}^2$. (Column 2, lines 45-56)

Regarding claim 2, A low-pressure mercury vapor discharge lamp as claimed in claim 1, characterized in that $0.0005 \leq C \leq 0.005 \text{ Mg}/\text{mm}^2$. (Column 4, lines 14-16)

Regarding claim 3, A low-pressure mercury vapor discharge lamp comprising an at least partly substantially cylindrical discharge vessel (10) with a length L_{dv} and with an internal diameter D_{in} ,

the discharge vessel (10) enclosing, in a gastight manner, a discharge space (13)

provided with a inert gas mixture and with mercury,

the discharge vessel (20) comprising discharge means for maintaining a discharge in the discharge space (13), characterized in that the product of the mercury pressure P

P_{Hg} and the internal diameter D_{in} of the discharge vessel lies in a range expressed by

$0.13 \leq P_{Hg} \times D_{in} \leq 8 \text{ Pa.cm}$. (Column 4, lines 28-31)

Regarding claim 4, A low-pressure mercury vapor discharge lamp as claimed in claim 3, characterized in that the product of the mercury pressure P_{Hg} and the internal diameter D_{in} of the discharge vessel lies in a range expressed by $0.13 \leq P_{Hg} \times D_{in} \leq 4$ Pa.cm (Column 4, lines 42-46)

Regarding claim 5, A low-pressure mercury vapor discharge lamp as claimed in claim 1, characterized in that the discharge vessel (10) contains less than 0.1 mg mercury (column 4, lines 63-64)

Regarding claim 6, A low-pressure mercury vapor discharge lamp as claimed in claim 1 characterized in that the discharge means comprises electrodes (20a;20b) arranged in the discharge space (13), in that an electrode shield (22a; 22b) at least substantially surrounds at least one of the electrodes (20a; 20b), and in that the electrode shield (22a; 22b) is made from a ceramic material or from stainless steel (column 5, lines 15-19)

Regarding claim 7, A low-pressure mercury vapor discharge lamp as claimed in claim 1 characterized in that the means (Figure 3, #233)for maintaining an electric discharge are situated outside a discharge space (Figure 3, #211) surrounded by the discharge vessel (Figure 3, #210), and in that said means comprise a coil (Figure 3, #233) provided with a winding of an electrical conductor (Figure 3, #234), with a high-frequency voltage, for example having a frequency of approximately 3 MHz, being supplied to said coil in operation (column 14, lines 53-55)

Regarding claim 8, A low-pressure mercury vapor discharge lamp as claimed in claim 1, characterized in that the product of the pressure of the inert gas mixture P_{igm} and the

internal diameter D_{in} of the discharge vessel (10) lies in a range expressed by that $P_{igm} \times D_{in} \geq 5.2 \text{ Pa.m.}$ (Column 6, lines 30-33)

Regarding claim 9, A low-pressure mercury vapor discharge lamp as claimed in claim 8, characterized in that $P_{igm} \times D_{in} \geq 8 \text{ Pa.m}$ (Column 6, lines 65-column 7 line 1)

Regarding claim 10, A low-pressure mercury vapor discharge lamp as claimed in claim 1 characterized in that at least a portion of an inner wall of the discharge vessel (10) is provided with a protective layer (17), and in that the protective layer (17) comprises a material selected from the group formed by oxides of scandium, yttrium, and a further rare-earth metal, and/or a material selected from the group formed by borates of an alkaline-earth metal, scandium, yttrium, and a further rare-earth metal, and/or a material selected from the group formed by phosphates of an alkaline-earth metal, scandium, yttrium, and a further rare-earth metal.

Regarding claim 11, A low-pressure mercury vapor discharge lamp as claimed in claim 10, characterized in that the alkaline-earth metal is calcium, strontium, and/or barium (Column 7, lines 57-65).

Regarding claim 12, A low-pressure mercury vapor discharge lamp as claimed in claim 10, characterized in that the further rare-earth metal is lanthanum, cerium, and/or gadolinium. (Column 7, lines 50-55).

Regarding claim 13, A low-pressure mercury vapor discharge lamp as claimed in claim 10, characterized in that the oxide is yttrium oxide and/or gadolinium oxide. (Column 8, lines 5-10).

Regarding claim 14, (original) A low-pressure mercury vapor discharge lamp as

claimed in claim 10, characterized in that the discharge vessel (10) is made from a glass comprising silicon dioxide and sodium oxide, with a glass composition comprising the following essential constituents, given in percentages by weight (wt.%) : 60-80 wt.% SiO₂ and 10-20 wt.% Na₂O. (Column 14, lines 21 and Column 13, lines 8-9)

Regarding claim 15, (original) A low-pressure mercury vapor discharge lamp as claimed in claim 14, characterized in that the glass composition comprises the following constituents: 70-75 wt.% SiO₂, 15-18 wt.% Na₂O, and 0.25-2 wt.% K₂O. (Column 13, lines 5-10)

Regarding claim 16, A low-pressure mercury vapor discharge lamp as claimed in claim 1 characterized in that the discharge vessel (10) is made from a glass that is substantially free of PbO and comprises, expressed as a percentage by weight, the following constituents: 55-70 wt.% SiO₂, 0.1 wt.% Al₂O₃, 0.5-4 wt.% Li₂O, 0.5-3 wt.% Na₂O, 10-15 wt.% K₂O, 0-3 wt.% MgO, 0-4 wt.% CaO, 0.5-5 wt.% SrO, 7-10 wt.% BaO (Column 14, lines 20-25)

Regarding claim 17, The low-pressure mercury vapor discharge lamp as claimed in claim 16, characterized in that the composition of the discharge vessel comprises: 65-70 wt.% SiO₂, 1.4-2.2 wt.% Li₂O, 1.5-2.5 wt.% Na₂O, 11-12.3 wt.% K₂O, 1.8-2.6 wt.% MgO, 2.5-5 wt.% CaO, 2-3.5 wt.% SrO, 8-9.5 wt.% BaO (Column 14, lines 19-24)

Regarding claim 18, The low-pressure mercury vapor discharge lamp as claimed in claim 16, characterized in that the composition of the discharge vessel in addition comprises: 0.01-0.2 wt.% Fe₂O₃ and/or 0.01-0.2 wt.% CeO₂, and/or 0.01-0.15 wt.% S₂O₃. (Column 14, lines 25-26)

Regarding claim 19, The low-pressure mercury vapor discharge lamp as claimed in claim 16, characterized in that the sum of the concentrations of Li₂O, Na₂O, and K₂O lies in a range from 14 to 16 wt.% and/or the sum of the concentrations of SrO and BaO lies in a range from 10 to 12.5 wt.%. (Column 14, lines 26-30)

Regarding claim 20, The low-pressure mercury vapor discharge (Figure 1A) lamp as claimed in claim 1 characterized in that the discharge vessel (10) is provided with a luminescent layer (16) comprising a luminescent material at a side facing away from the discharge space (13).

Regarding claim 21, The low-pressure mercury vapor discharge lamp as claimed in claim 20, characterized in that the luminescent layer is embedded in an inorganic matrix material (Column 11, lines 17-20)

Regarding claim 22, A compact fluorescent lamp comprising a low-pressure mercury-vapor discharge lamp as claimed in claim 1, characterized in that a lamp housing (70) is attached to the discharge vessel (10) of the low-pressure mercury-vapor discharge lamp, which lamp housing is provided with a lamp cap (71) (column 12 lines 60-65)

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure can be found in form 892 of this office action.

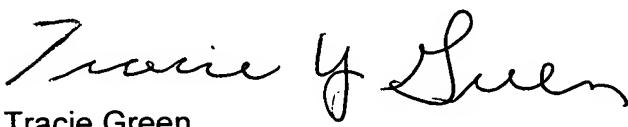
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tracie Y. Green whose telephone number is 571/270-3104. The examiner can normally be reached on Monday-Thursday- 7:30am-5:00pm.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571/272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Tracie Green
December 20, 2007


JOSEPH WILLIAMS
PRIMARY EXAMINER